REMARKS

This application is a continuation of a parent application, U.S. Patent Application No. 09/157,776, filed September 21, 1998. A preliminary amendment filed with this application on November 26, 2001, cancelled Claims 7 and 8, which correspond to the allowed claims in the parent application, and added new Claims 27-31, which correspond to claims that were added in the parent application. Claims 28-31 have been amended to depend from Claim 27, as they were unintentionally and inadvertently drafted as depending from Claim 1 in the preliminary amendment. Therefore, Claims 1-6 and 9-31 are now pending in this application.

In the Office Action dated February 27, 2004, Claim 26 has been newly rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 1-6 and 9-31 have been again rejected under 35 U.S.C. § 103(a) as being unpatentable over previously cited art of record U.S. Patent No. 5,933,647, issued to Aronberg et al. ("Aronberg") taken in view of technical facts, which the Examiner asserts were well known in the art at the time the invention was made. Claim 6 has again been further rejected under 35 U.S.C. § 103(a) as being unpatentable over Aronberg in view of previously cited art of record U.S. Patent No. 5,893,911, issued to Piskiel et al. ("Piskiel").

Applicant respectfully traverses the rejections of Claims 1 - 6 and 9 - 31 as set forth the Office Action. Applicant respectfully submits that Claim 26 recites statutory subject matter. Further, Applicant respectfully submits that Aronberg, Piskiel, and knowledge in the art at the time of making the invention, either alone or in combination, fail to teach or suggest any database structure or functionality for providing an "installation action to be taken as part of a standardized data-driven software installation" as recited in Claims 1-6 and 9-31. Pursuant to 37 C.F.R. § 1.111, and for the reasons set forth below, the Applicant respectfully requests reconsideration and allowance of this application.

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Before discussing in detail the reasons why Applicant believes that Claims 1-6 and 9-31 are allowable, brief descriptions of the present invention and the cited and applied references are again presented as in the preliminary amendment. The following discussion of the disclosed embodiments of Applicant's invention and the discussion of the differences among the disclosed embodiments and the teachings in the applied references are not provided to define the scope or interpretation of any of the claims. Instead, such discussed differences are provided to help the United States Patent and Trademark Office (hereinafter "the Office") better appreciate important claim distinctions discussed thereafter.

Summary of the Invention

The present invention is directed toward a method and system for installing software and validating software installations using custom actions. According to one embodiment of the invention, a database engine module is provided for maintaining a database. The database contains a custom action table that includes columns providing information about aspects of an installation action. Each row in the custom action table represents an individual installation action. The system also includes an installation engine module operative to read an action value from an action column of the action row and to cause an action specified by the action value to be performed by a computer. Accordingly, the database structure and functionality, enumerated in the columns and rows of the custom action table, enable an individual installation action to be taken as part of a standardized data-driven software installation.

By providing a custom action table and databases as described above, the present invention provides advantages not found in prior art systems. In particular, the method and system of the present invention allow a data-driven software installation program to be customized by simply defining custom actions as installation action rows in the customer action table that are invoked, as necessary. The installation actions allow software developers to make

use of the services of a standardized data-driven installation engine, while retaining the flexibility to customize the installation action when required. Moreover, using aspects of the present invention, a software developer can build upon preexisting actions using standard database techniques to create a sequence table that includes both newly defined and preexisting actions.

Summary of Aronberg

Aronberg is directed toward a system for distributing software in a customized configuration to preselected computers in a network environment. Aronberg purportedly disclose a network environment that includes a workstation running a console, a workstation running an agent, and a file server. The workstation running the console creates distribution control information that dictates how the software is distributed and to which agent-based workstations under a given set of conditions. The distribution control information is stored on the file server where it is subsequently downloaded by the agent-based workstation that meets the conditions for a particular configuration of the software. Thus, Aronberg describe a system in which a user at the workstation running a console creates customized configuration and distribution control information that is subsequently used for remotely installing software on a plurality of client computers when specified conditions are met.

Aronberg fail to teach or suggest any database structure or functionality for installing software, much less a database structure and functionality for providing an individual installation action taken as part of a standardized data-driven software installation. Nowhere does Aronberg teach or suggest a database structure for a custom action table having a plurality of action columns and at least one action row for representing an individual installation action. Additionally, Aronberg fails to teach or suggest database functionality in which action columns are used for specifying data corresponding to aspects of an installation action that may be taken

as part of a standardized data-driven software installation and at least one action row used for representing an individual installation action taken as part of a standardized data-driven software installation.

Summary of Piskiel

Piskiel is generally directed to disclosing methods of associated structures for rapidly processing messages in a distributed computing application. Piskiel purportedly describes a method for dynamically determining which processes of a number of subscriber processes should receive a particular message generated by the publishing process. The subscriber processes that receive a published message are defined by the application of rules at the publishing process or at a centralized publication server. Rules are associated with each subscribing process on the network to define transaction messages that are to be received by that process (i.e., messages that are to be received by that process and any permutations thereof). The rules are stored in a manner accessible to all processes in the network and are represented as Boolean predicate expressions that are evaluated as being true with respect to a received message if the corresponding process wishes to subscribe to such messages. Thus, Piskiel describes a method and system to rapidly locate and evaluate all rules that are applicable to a particular published message without the need to locate or evaluate other unrelated rules. However, Piskiel fails to teach or suggest any database structure or functionality for installing software, much less a database structure and functionality for providing an individual installation action taken as part of a standardized data-driven software installation. Piskiel fails to teach or suggest a database structure for a custom action table having a plurality of action columns and at least one action row for representing an individual installation action. Piskiel also fails to teach or suggest database functionality in which the action columns are used for specifying data corresponding to aspects of an installation action that may be taken as part of a standardized data-driven software

installation and at least one action row used for representing an individual installation action taken as part of a standardized data-driven software installation.

Rejection of Claim 26 under 35 U.S.C. § 101

As set forth in the Office Action, the Examiner newly rejected independent Claim 26 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Examiner asserts that Claim 26 merely recites a data structure comprising various fields without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, citing reported cases and the MPEP Ch. 2106(IV)(B)(1)(b). The Applicant respectfully disagrees. Claim 26 recites:

> 26. A computer-readable medium having stored thereon a data structure comprising:
>
> a first data field containing data specifying a name of an action;
>
> a second data field containing data specifying a source for the action;
>
> a third data field containing data specifying a target for the action; and
>
> a fourth data field containing data specifying a type of the action, wherein during a predetermined data processing operation the action is read from the source specified by the second data field and submitted to an operating system component determined by the fourth data field and wherein the action is started from a location determined by the third data field.

The functional interrelationship between the name, source, target, and type data fields is readily apparent from a reading of Claim 26 and the supporting specification. The name and source specify what the action is and where to get it, the target specifies where to start the action, and the type specifies which operating system component takes the action. At the very least, changes to any one of the data fields will change the computing processes performed by the computer, including what action is performed, where to get the action, where to start the action, and which component performs the action.

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Because independent Claim 26 is directed to statutory subject matter, reconsideration and allowance of Claim 26 is respectfully requested.

Rejection of Claims 1-6 and 9-31 under 35 U.S.C. § 103(a) over Aronberg.

With respect to Claims 1-6, 10-13, 15-19, 21-24, and 27, as set forth in the Office Action, the Examiner concedes that Aronberg does not explicitly disclose a database having a custom action table with columns and a row, but argues that the dialog box in Aronberg from which a user selects the actions for installing an application is the same as defining the actions in the database custom action table in view of the fact that tables with rows and columns for storing information are well known in the art at the time the invention was made. Applicant respectfully disagrees.

Equating selections that a user makes when interacting with a dialog box to the actions as stored in the custom action table of the present invention is simply incorrect. If anything, the fact that, in Aronberg, the user must select an action from a dialog box teaches away from the present invention, one of the goals of which is to simplify the installation process for the user by facilitating a standardized data-driven software installation, as opposed to a user-driven software installation. Therefore, Aronberg fails to teach a method for installing software that provides "an individual installation action taken as part of a standardized data-driven software installation."

With respect to Claim 9, 14, 20, and 25 the Examiner again concedes that Aronberg does not explicitly disclose a database having a custom action table with columns and a row, but argues that clicking on the particular action desired as disclosed in Aronberg is the same as reading the actions in the database custom action table in view of the fact that tables with rows and columns for accessing information are well known in the art at the time the invention was made. Applicant respectfully disagrees.

Equating clicking on the particular action desired with programmatic access of the action information stored in the custom action table of the present invention is simply incorrect. As before, the fact that, in Aronberg, the user must click on an action teaches away from the present invention, one of the goals of which is to simplify the installation process for the user by facilitating a standardized data-driven software installation, as opposed to a user-driven software installation. Therefore, Aronberg fails to teach a method for installing software that provides "an individual installation action taken as part of a standardized data-driven software installation."

With respect to Claim 26, and 28-31, the Examiner states that Aronberg discloses a name, type, source, and target of an action, citing Aronberg Figs. 5, 7, and 10. With respect to Claim 26, the Examiner concedes that Aronberg does not explicitly disclose "that an action is read from the source specified by the data and is submitted to an operating system component determined by the data field specifies [sic] a type of the action and wherein the action is started from a location determined by the data specifies [sic] the target." (Office Action, p. 7, 4th paragraph). But the Examiner apparently argues that, since it was well known in the art to process instructions according to specified criteria attached to instructions, it would have been obvious to read an action from a source specifed by the data and submit the action to an operating system component determined from a type specified by the data, and to start the action from a location determined from a target specified by the data, "because it facilitates the process of installng the software properly according the criteria [sic]." (Office Action, p. 7, 6th paragraph). Applicant respectfully disagrees.

Equating the source, type, and target with "specified criteria" is simply incorrect. The source, type, and target are the data fields that drive the actual installation of the software, they are not merely criteria to facilitate an installation. Therefore, Aronberg fails to teach a method

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for installing software that provides "an individual installation action taken as part of a standardized data-driven software installation."

Because the Office has failed to state a *prima facie* case of obviousness, the rejections of Claims 1-6 and 9-31 should be withdrawn. Independent Claims 1, 9, 15, 20, 26, and 27 are clearly and patentably distinguishable over the cited and applied references. Claims 2-6, 10-14, 16-19, 21-25, and 28-31 are allowable because they depend from allowable independent Claims 1, 9, 15, 20, and 27, and because of their additional limitations, some of which have been discussed above. Consequently, reconsideration and allowance of Claims 1-6 and 9-31 is respectfully requested.

Further Rejection of Claim 6 under 35 U.S.C. § 103(a) over Aronberg in view of Piskiel

With respect to Claim 6, as set forth in the Office Action, the Examiner concedes that Aronberg does not explicitly disclose a first sequence table specifying an order in which to process an action, but argues that Piskiel discloses a table comprising information that identifies the order in which multiple actions are to be performed, and that it would have been obvious to modify Aronberg with the teaching of Piskiel to have a first sequence table that specifies an order in which to process the action, because it facilitates the process of installing the program properly. Applicant respectfully disagrees.

Aronberg discloses a user-driven installation process for which a table determining the order of actions is irrelevant, since the order is either hard-coded, i.e. immutable, or determined by user selection. Thus, there is no motivation to combine the teaching of Piskiel with the teaching of Aronberg. Equating selections that a user makes when interacting with a dialog box to the actions as stored in the custom action table of the present invention is simply incorrect. If anything, the fact that, in Aronberg, the user must select an action from a dialog box teaches away from the present invention, one of the goals of which is to simplify the installation process

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for the user by facilitating a standardized data-driven software installation, as opposed to a user-driven software installation. Therefore, Aronberg fails to teach a method for installing software that provides "an individual installation action taken as part of a standardized data-driven software installation."

Because the Office has failed to state a *prima facie* case of obviousness, the further rejection of Claim 6 should be withdrawn. Claim 6 is allowable because it depends from allowable independent Claim 1, and further because of the additional limitations discussed above. Consequently, reconsideration and allowance of Claim 6 is respectfully requested.

CONCLUSION

In view of the foregoing remarks, Applicant submits that all of the claims in the present application are clearly patentably distinguishable over the teachings of Aronberg and Piskiel taken alone or in combination. Thus, Applicant submits that this application is in condition for allowance. Reconsideration and reexamination of the application, allowance of the claims, and passing of the application to issue at an early date are solicited. If the Examiner has any

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remaining questions concerning this application, the Examiner is invited to contact the Applicant's undersigned attorney at the number below.

Respectfully submitted,

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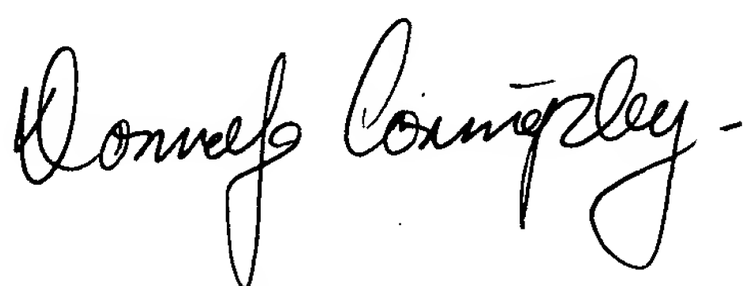

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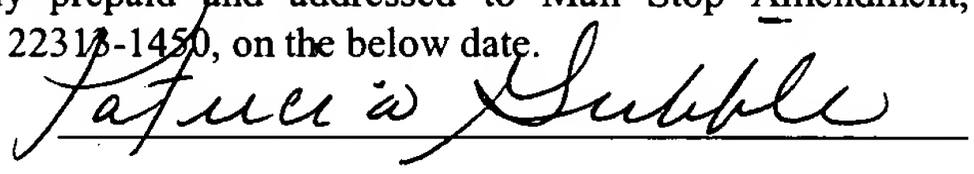
Date: June 24, 2004 

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